Subject: CONSTRUCTION MEMORANDUM NO. 06-39

Transportation or Operation of Heavy Equipment on Pavement or Bridges Within the Contract Limits Article 107.16

Effective: April 1, 2006

Expires: Indefinite

This memorandum supersedes Construction Memorandum No. 03-39, dated August 15, 2003.

It is the policy of the Division of Highways that repeated hauling longitudinally with overweight equipment or overweight trucks will not be permitted on pavements. Permits should not be issued for this type of repetitive movement on pavement.

Article 107.16 of the Standard Specifications states that when a Contractor desires to operate or transport heavy equipment on pavement or bridges that are within the contract limits application is to be made to the Regional Engineer. The Regional Engineer will send one copy of applications involving bridges to the Bureau of Bridges and Structures for analysis. One copy of applications involving pavements should be sent to the Bureau of Materials and Physical Research for analysis. One copy of all applications should be sent to the Bureau of Construction.

Applications are to be accompanied by a sketch showing weights and dimensions of the equipment. To facilitate submittal of the applications, the following standard drawings are attached:

- 1. Slipform paver, fine grade machine or subbase machine
- 2. Slipform paver
- 3. Concrete paver
- 4. Concrete batch truck
- 5. Crane, shovel or dragline (tracked)
- 6. Crane, shovel or dragline (truck mounted)
- 7. Scraper, carrying (one-axle tractor)
- 8. Scraper, carrying (two-axle tractor)
- 9. Scraper, pull behind
- 10. Tractor, crawler

To supplement these drawings, other pertinent information available from the manufacturer or the internet is frequently helpful.

The Illinois statutes clearly state the maximum allowable weight for construction equipment and all types of trucks. Both the Division of Highways and the Contractors, of course, are affected by these statutes.

Article 107.01 of the Standard Specifications requires a Contractor to observe and comply with all Federal, State, and local laws, ordinances, and regulations which in any manner affect the conduct of the work. Article 107.16 of the Standard

Specifications states, "All equipment used in the prosecution of the work shall comply with the legal loading limits established by the statutes of the State of Illinois when moved over or operated on any pavement or structure unless permission in writing has been issued by the Engineer "

The Resident will notify the District Construction Engineer of violations. The District will advise the Contractor that if persistent violations occur and corrective action is not taken, the appropriate law enforcement officials will be notified.

Following is a summary of the policies with regard to permits for the movement of equipment and overdimension and overweight vehicles with particular reference to roads under construction:

- 1. The granting of permits for movement of overdimension or overweight Contractor's equipment within the limits of a construction section is a function of the Bureau of Construction, but is administered by the Regional Engineers.
- A construction section is considered as follows: The extreme locations of a work area of a section of highway as designated in the construction contract; or if intermittent work is to be performed on a given route and the intermittent work sections are within close proximity, the entire longitudinal distance as specified in the contract.
- 3. Contractors shall apply to the Regional Engineer of the district in which the work area is located. One application shall be submitted for each piece of equipment; the application shall be one of the standard drawings described on page 1 of this memorandum, completely filled out.
- 4. Distinguishing features of a construction section permit are:
 - a. Moves are to be made entirely within a construction section.
 - b. Moves are not subject to the provisions of the Uniform Act Regulating
 Traffic because they are made in connection with work being performed
 "upon the surface of a highway" (Sec. 23 of the Act).
 - c. Fees are not charged for permits for the movement of equipment within a construction zone because of the exemption listed above.
 - d. Permits are issued for such moves to be sure that newly completed work or existing work is not damaged during construction operations, and if work is to be performed while traffic is being maintained, to be sure that traffic is protected adequately.
 - e. The permits are issued by the Regional Engineer and the appropriate Illinois State Police District is notified by the Regional Engineer.
 - f. The permits are issued only to Contractors awarded highway construction contracts by the Department. Permits for the movement of equipment within a construction zone will not be issued for private construction projects.

- 5. Upon approval of application, Permit Form No. "C" will be issued by Regional Engineer.
 - a. Permit No. "C" (Construction Permit) will not be issued for overdimension grading equipment either over or under the legal axle load to haul longitudinally on pavement opened to traffic as this creates a very dangerous condition to traffic. A thorough study of the job usually results in finding a way to operate the larger grading equipment on the shoulders or within the right-of-way beyond the limits of the pavement. This Permit No. "C" is only to be used for the movement of equipment from one location to another when it is impossible for the equipment to be moved except on the pavement. A copy of the standard form for Permit No. "C" is attached.
 - b. Construction permits are to be issued sparingly and should be issued only when the Regional Engineer feels that the proposed overdimension or overweight moves are warranted. Prior to construction, the Regional Engineer should discuss construction operations and the necessary permit movement of equipment with the State Police should s/he feel that a traffic problem will develop.
- 6. For movement of equipment outside of the limits of the construction section, a permit must be obtained by the Contractor in conformance with the latest policy publication "Oversize and Overweight Permit Movement on State Highways."
- 7. Overweight permits for the movement of loads within the limits of the construction section may be issued by the Regional Engineer with the approval of the Central Bureau of Construction. Applications for overweight permits and completed standard drawings must contain sufficient vehicle and load data for pavement and structure analysis. The Regional Engineer will submit the application to the appropriate bureau(s) for analysis.
 - a. Heavy Grading Equipment. Some types of grading equipment exceed the permissible axle load limit even though empty. It is obvious that a permit cannot be issued to operate this equipment on any pavement. When shouldering a new pavement, the earth-moving equipment must stay off the pavement if the axle load exceeds the permissible load limit. There are smaller types of scrapers available for use that meet the axle load limits. On widening and ditching jobs where there is a considerable volume of earth to be hauled for some distance, trucks should be used in those cases when the Contractor's earth-moving equipment exceeds permissible load limits.
 - b. Pavement to be Abandoned. Judgement should be used when it may be necessary for heavy earth-moving equipment to be operated on pavement which later is to be abandoned. The portion of pavement to be abandoned preferably should be barricaded to traffic before permitting the Contractor to use any portion of it. When the traffic volume is such that it cannot be limited to one lane, consideration can be given to allowing the equipment to operate with two wheels on the pavement and two wheels on the shoulders. Each case is to be given special study. The creation of

conditions dangerous to traffic during construction operations are to be avoided.

- c. <u>Crossing Existing Pavement</u>. When necessary to haul excavation or borrow across the existing pavement, the plans generally designate the crossing locations. When not indicated on the plans, the crossings must be determined in the field; when possible, they are to be confined to isolated locations. In either case, analysis of the pavement may be required. Contractors are to submit forms describing the equipment to be utilized for analysis.
- 8. In all cases the Contractor must use all reasonable precaution in loading vehicles so that the movement will comply with legal weight and dimension limits.

Roger L. Driskell

Engineer of Construction

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STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS

CONSTRUCTION SECTION PERMIT

PERMIT NO. C

PERMIT VOID IF LIMITATIONS STATED HEREIN ARE EXCEEDED

This is your permission and authority to move:

Width	Length _	Height
Gross Weight		Axle Loads
between points within the I	imits of Constru	uction Section
as follows:		
provided:		
The maximum operating sp	peed shall be _	miles per hour. Movements
shall be made in compliand	ce with designate	ted SPECIAL PROVISIONS and the GENERAL
PROVISIONS set forth on	the reverse side	e of this sheet, which apply as if fully written herein.
Expires		_
	Ву	
	Reç	gional Engineer

GENERAL PROVISIONS

PERMIT IS VOID WHEN ANY CONDITION OR RESTRICTION IS VIOLATED AND THE PERMIT SHALL BE SURRENDERED TO THE ARRESTING POLICE OFFICER.

The acceptance of the permit by the grantee constitutes an agreement that the movements will be made strictly in compliance with the terms set forth in the permit and the applicable provisions.

The permit is effective only insofar as the Department has jurisdiction and does not release the grantee from complying with other existing laws which may apply to the movement.

Under this permit, movements may NOT be made (1) on any highway other than the highways designated as the route of travel, (2) on any highway or bridge posted for a load limit, unless otherwise indicated, (3) on any highway not maintained by the Department.

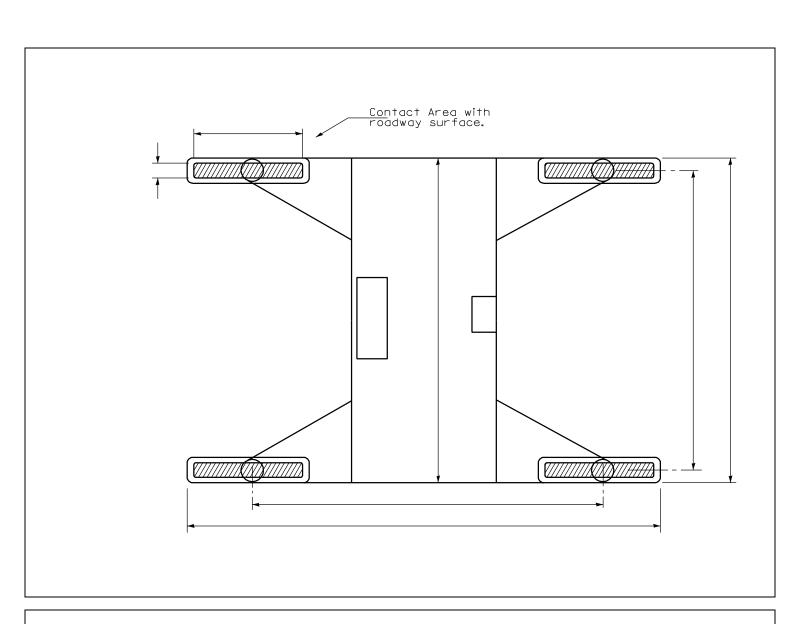
Insofar as practical, movements shall be confined to a single traffic lane, and shall be made in such a manner that the rest of the roadway will be open at all times so that the flow of other traffic will not unnecessarily be obstructed.

The grantee assumes all responsibility for injury to persons or damage to public or private property, including his/her own, or the object being transported, caused directly or indirectly by the transportation of vehicles or vehicles and objects authorized under this permit. The grantee agrees to hold the State of Illinois harmless from all suits, claims, damages or proceedings of any kind, and to indemnify the State of Illinois for any claim it may be required to pay arising from the movement.

Permit covers only the person or firm designated as grantee and is not transferable. The driver of the vehicle shall have the permit in his/her possession during the progress of the movement and shall show the permit, on demand, to any police officer or authorized employee of the Department.

The extremities of any oversize vehicle, vehicle combination, or load and all protruding objects, shall be marked with clean, bright, red flags not less than 300 mm (12 inches) square. Amber flashing lights may augment flags and flaggers but may not supersede them.

Slip Form Paver	Fine Grade Machine	Sub-Base Machine
Manufacturer:		
Model:	Series Number:	Year Built:
Weight:		
Remarks:		



Send To: District Engineer cc: Central Bureau of Construction

If this contract involves: bridges the District Engineer will forward a copy to:

pavement the District Engineer will forward a copy to:

Bureau of Bridges & Structures Bureau of Materials and Physical Research

SLIP FORM PAVER

Manufacturer:		
Model:	Series Number:	Year Built:
Tare Weight:		
		Contact Area with <pre>_ roadway surface</pre>
	-	7 roddwdy sui rode
	‡ [V////////////////////////////////////	
		<u>///////////</u> J

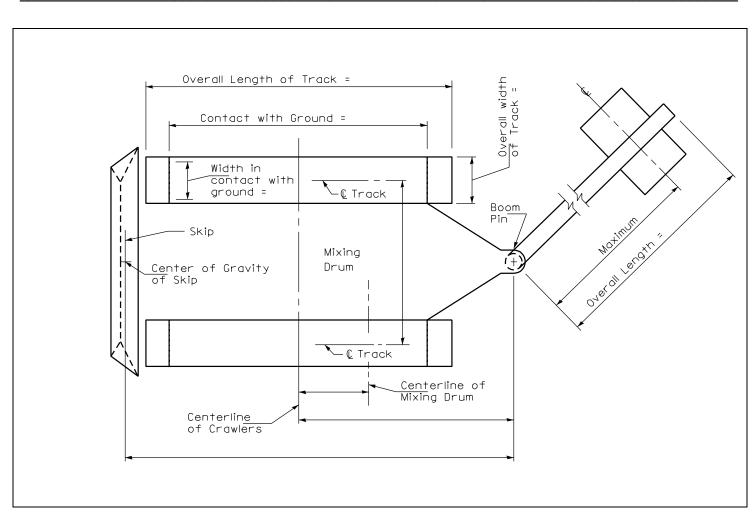
Send To: District Engineer Central Bureau of Construction

If this contract involves: bridges

the District Engineer will forward a copy to: the District Engineer will forward a copy to: Bureau of Bridges & Structures Bureau of Materials and Physical Research pavement

CONCRETE PAVER

Manufacturer:		
Model:	Series Number:	Year Built:
Weight:	Rated Capacity	(cubic ft.):
Wt. Boom:	Wt. Bucket:	Wt. Skip:
	f gravity of paver to boom pin: longitudinal axis, and water tanks filled)	



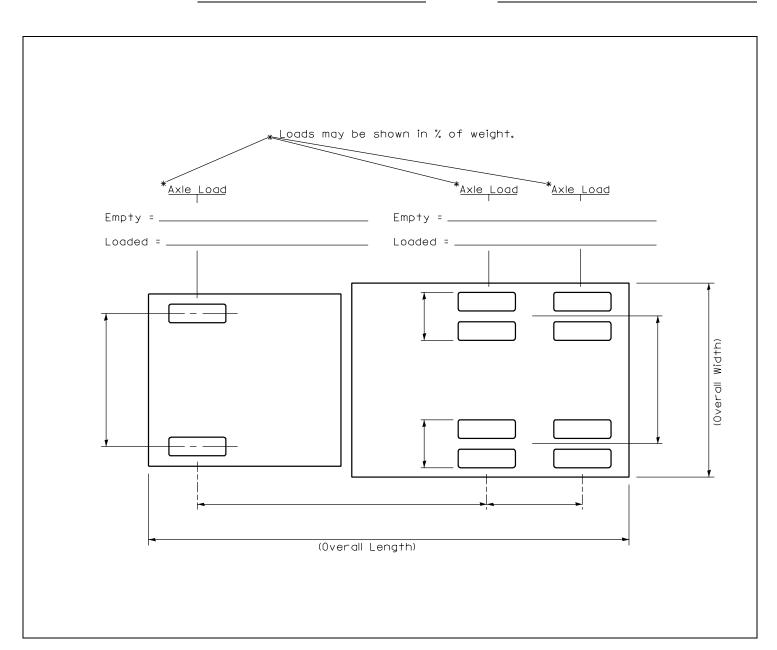
Send To: District Engineer cc: Central Bureau of Construction

If this contract involves: bridges the District Engineer will forward a copy to: Bureau of Bridges & Structures

pavement the District Engineer will forward a copy to: Bureau of Materials and Physical Research

CONCRETE BATCH TRUCK

Manufacturer: _				
Model:		Series Number:	Year Built:	
Weight, Empty:		Weight, Loaded:		
Tire Sizes:	Front:	Rear:		



Send To: District Engineer cc: Central Bureau of Construction

If this contract involves: bridges the District Engineer will forward a copy to: Bureau of Bridges & Structures

pavement the District Engineer will forward a copy to: Bureau of Materials and Physical Research

	CRANE, SHOVEL	L OR DRAGLINE (TR	RACKED)	
Man	nufacturer:			
Mod	lel: Series Num	nber:	Year Bui	lt:
F.O.	.B. Price:	Facto	ry No.:	
Rem	narks:			
	Center of Gravity (Unload Boom e 459)	C Boom Pin E Centerline of Crowlers	Pulley Pin Centerline of Loaded Bucket	
A. B. b. C. c. D. E. F.	Width of track in contact with ground: Overall length of caternillar track:	n: cks: line of counterweight m @ 45°) to boom pir	: n:	
	Weight of machine without counterweight and bucket: Size of bucket cy weight Weight of counterweight Caterpillar Lugs: Width: Depth	ght	Lbs. pacing: L	Lbs.

Send To: District Engineer cc: Central Bureau of Construction

If this contract involves: bridges the District Engineer will forward a copy to: Bureau of Bridges & Structures

pavement the District Engineer will forward a copy to:

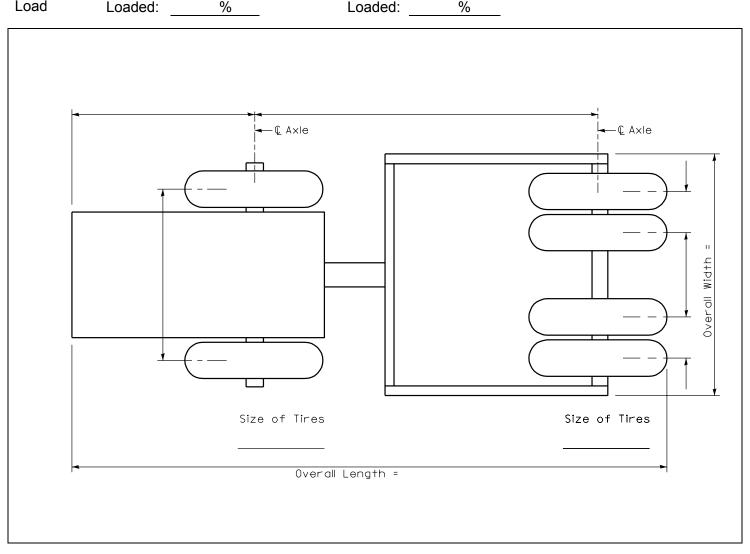
Bureau of Bridges & Structures Bureau of Materials and Physical Research

CRANE, SHOVEL OR DRAGLINE (WHEELED)

Manufacturer:		
Model:	Series Number:	Rated Capacity:
Factory No:		
Owner:		
Route:	Section:	County:
Cross Section of Pavement:		
Center of (Unloaded Bo	Gravity Doom @ 45°)	
Distribution Front Axle	Middle Axle	Rear Axle
Load %	%	%
Size of Tires Number		
Weight of Machine:	Lbs. Size of Bucket:	Cu. Yd.
Size of Bucket:	Cu. Yd. Weight:	Lbs.
Weight of Machine with Count	erweight and Bucket:	Lbs.
Weight of Machine with Count	erweight and Bucket:	Lbs.
Send To: District Engineer	cc: Central Bureau of Construction	
If this contract involves: bridges pavement	the District Engineer will forward a copy to the District Engineer will forward a copy to	

SCRAPER, CARRYING (ONE AXLE TRACTOR)

Manutacti	urer:			
Model: _		Sei	ries Number:	Year Built:
Capacity,	Struck Measure	(cubic yd.):		
Capacity,	Heaped Measure	e (cubic yd.): _		
Weight, E	mpty:		Weight, Loaded:	
Distributio	Front <i>F</i>	<u> Axle</u>	Rear Axle	
of		<u>%</u>	Empty: %	<u> </u>



Send To: District Engineer Central Bureau of Construction CC:

If this contract involves: bridges the District Engineer will forward a copy to:

Bureau of Bridges & Structures Bureau of Materials and Physical Research the District Engineer will forward a copy to: pavement

SCRAPER, CARRYING (TWO AXLE TRACTOR)

Manufacturer:		
Model:	Series Number:	Year Built:
Capacity, Struck Measure (cubic yd.):	· <u></u>	
Capacity, Heaped Measure (cubic yd):	
Weight, Empty:	Weight, Loaded:	
© Axle	€ Axle	Overall Width =
Distribution of Empty:%	Middle Axle Empty:%	Rear Axle Empty:%
Load Loaded: %	Loaded: %	Loaded: %
Size of Tires		
Overall Length:	Overall Width:	
Sand To: District Engineer co	Central Rureau of Construction	

the District Engineer will forward a copy to: the District Engineer will forward a copy to: If this contract involves: bridges

Bureau of Bridges & Structures Bureau of Materials and Physical Research pavement

PULL BEHIND SCRAPER

Manufacturer:			
Model:	Series Number:	Year Built:	
Struck Capacity (cubic yds.):	Heaped Cap	acity (cubic yds.):	
Tare Weight			

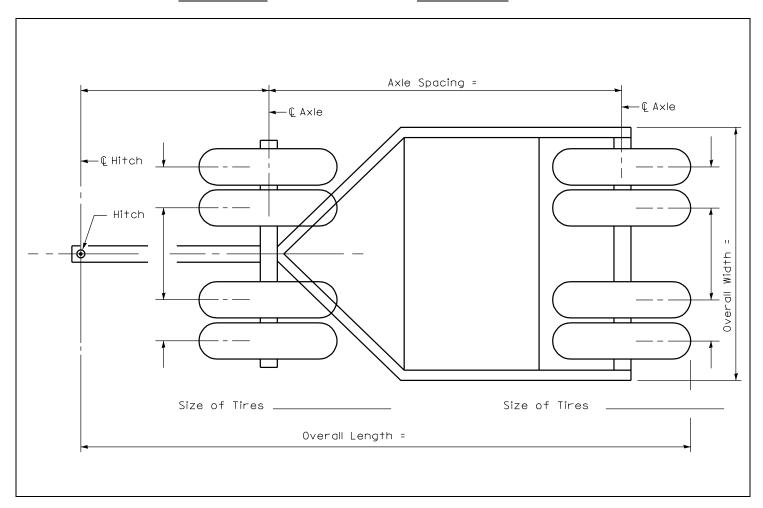
Front Axle

Rear Axle

Distribution

of Empty: Load Loaded:

Empty: Loaded:



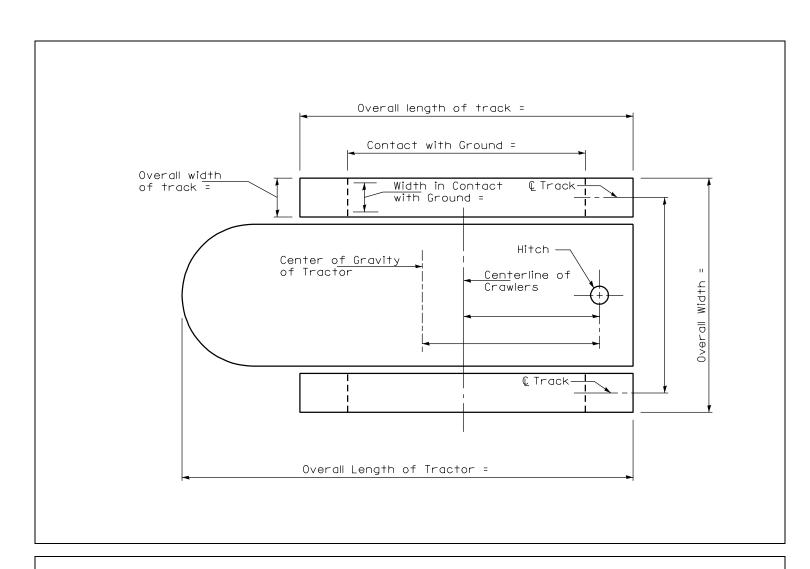
Send To: District Engineer Central Bureau of Construction

If this contract involves: bridges the District Engineer will forward a copy to: Bureau of Bridges & Structures

Bureau of Materials and Physical Research pavement the District Engineer will forward a copy to:

TRACTOR, CRAWLER

Manufacturer:		
Model:	Series Number:	Year Built:
Maximum Drawbar HP:	Max. Engine HP:	_ Fuel:
Approximate Working Weight (lbs.):		
Number of Cylinders:	Forward Speeds (mph):	
Remarks:		



Send To: District Engineer Central Bureau of Construction

the District Engineer will forward a copy to: If this contract involves: bridges pavement

the District Engineer will forward a copy to:

Bureau of Bridges & Structures Bureau of Materials and Physical Research